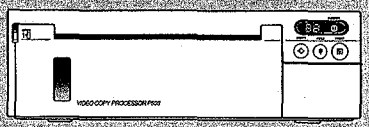
MITSUBISHI

VIDEO COPY PROCESSOR

MODEL

P500W
P500E

OPERATION MANUAL



THIS OPERATION MANUAL IS IMPORTANT TO YOU.
PLEASE READ IT BEFORE USING YOUR VIDEO COPY PROCESSOR.

VIDEO COPY PROCESSOR

This video copy processor complies with the requirements of the EC Directive 89/336/EEC, 73/23/EEC and 93/68/EEC.
The electro-magnetic susceptibility has been chosen at a level that gains proper operation in residential areas, on business and light industrial premises and on small-scale enterprises, inside as well as outside of the buildings. All places of operation are characterised by their connection to the public low voltage power supply system.

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2 PRECAUTIONS

In the interest of safety, please observe the following precautions:

POWER REQUIREMENT

This Video Copy Processor is designed for operation on 120V AC 50/60Hz in U.S.A and Canada, 220-240V AC 50Hz in Europe. Never connect to any outlet or power supply having a different voltage or frequency.

WARNING : THIS APPARATUS MUST BE EARTHED.
AVERTISSEMENT : CET APPAREIL DOIT ETRE MIS A LA TERRE.

This equipment is classified as class I, type B according to the type of protection against electric shock.

PROTECTIVE MEASURES

IF ABNORMALITIES ARISE, . . .

Use of the unit during emission of smoke or abnormal sounds (without adopting countermeasures) is dangerous. In such a case, unplug the power cord from the source outlet immeadiately, and request maintenance services from the sales dealer.

NEVER INSERT ANY OBJECT INTO THE UNIT

Foreign objects of any kind inserted into this unit constitute a safety hazard and can cause extensive damage.
If any object should be inserted into the unit, unplug the power cord, then contact the sales dealer.

DO NOT PLACE ANYTHING ON THE UNIT

Heavy objects placed on the unit can cause damage or obstruct proper ventilation.

PROTECT THE POWER CORD

Damage to the power cord may cause fire or shock hazard. When unplugging, hold by the plug only and remove carefully.
Never put a heavy thing on the power cord. The cord may be damaged causing a fire or electric shock.

DO NOT PLACE WATER CONTAINERS ON THE UNIT

Do not place flower vases, and other water-holding containers on the unit. If, for some reason, water seeps to the inside of the unit, unplug the power cord from the source outlet, and contact the sales daler. If used without corrective measures, the unit may be damaged.

DO NOT REMOVE THE CABINET

Touching internal parts is dangerous, besides, it may lead to malfunction. Contact the sales dealer to carry out internal checks and/or adjustments. Before opening the cover for eliminating a jammed paper, etc., be sure to disconnect the power cord plug.

PLACE THE UNIT ON A HORIZONTAL LEVEL

The unit is likely to be affected if it is placed in slanted conditions or in unstable places.

PROTECT AGAINST DEW FORMATION

In extremely cold regions, if the unit is moved quickly from an extremely cold place to a warmer one, dew is likely to be formed. If dew is formed, printing is not possible.

OPERATING AMBIENT TEMPERATURE RANGE

The operating ambient temperature range is 5°C-40°C (41°F-104°F), and humidity of 35-80%.

BE CAREFUL AROUND PRINT PAPER EXIT SLIT

Do not insert your hand or any material into the paper exit slit during printing.
Do not touch the cutter blade inside the paper exit slit. Otherwise, your finger will be injured.

DO NOT TOUCH THE THERMAL HEAD

Do not touch your hand to the thermal head (located inside the unit).
The thermal head is heated to high temperature. This may cause injury.

INSTALLATION LOCATIONS

MAINTAIN GOOD VENTILATION

Ventilation slots and holes are provided on sides of this unit.
Place the unit on a hard and level surface and locate at least 4" from walls to ensure proper ventilation.

UNSUITABLE LOCATIONS

Avoid shaky places or hot-springs areas where hydrogen sulfide and acidic ions are likely to be generated.

PLACES WITH HIGH HUMIDITY AND DUST

Do not place the unit at locations with high humidity and/ or dust. They can cause extensive damage.
Avoid places where the unit is likely to contact oily fumes and vapors.

PLACES NOT LIKELY TO BE EXTREMELY HOT

Places exposed to direct sunlight, or near heating appliances can attain extremely high temperatures, which may deform the cabinet, or can become a prime cause of damage.

SET THE UNIT ON A FLAT PLACE

Do not use the unit in the state inclined ±20° in vertical or horizontal direction, or in an unstable place.
It will disturb paper feeding or ventilation, or affects the set.

FOR LONG OPERATING LIFE

UNSUITABLE MATERIALS FOR THE UNIT
Many plastic components are used in the back-side. Coat flaking and deformation are likely to occur if the unit is wiped with chemical dusters, benzine, thinner or any other solvent, if rubbers or PVC items are left in contact with the unit for extended duration, or if the unit is sprayed with insecticide.

CARE OF THE CABINET
Unplug and clean with a soft cloth slightly moistened with a mild soap and water solution. Allow to dry completely before operating. Never use petroleum base solutions or abrasive cleaners.

HEAD ABRASION
The thermal head, like the video head, wears out. When it is abraded, it becomes hard to print out fine details of the picture. In such a case, it is necessary to replace the thermal head. Consult with the sales dealer for replacing the head.

WHEN A DEFECT IS FOUND
When you detect smoke or smell from the unit, disconnect immediately the power cord plug from a wall socket and ask the agent for repair. Dangerous if the unit is operated in that state.

CONNECTION DEVICES
Read thoroughly "Operating Precautions" of the instruction booklets for the devices connected with the Video Copy Processor.
Do not disconnect the power cord during printing.

CAUTION ON RELOCATING
When transporting this unit, make sure it is not likely to be subjected to impacts. They can be a prime cause for damage. Further, make sure to disconnect the power cord from the power outlet, and the cables from the connected devices.

UNPLUG THE POWER CORD DURING A LONG ABSENCE
Turn off the MAIN power switch and unplug the power cord during a long absence.

THERMAL PAPER

- Thermal paper K75HM (High-density synthetic paper for high quality printing) is available.
- One roll of K75HM permits printing about 130 pictures in "PAPER SAVING MODE".
- When the remaining length of the paper is about10", a color belt appears at the paper end. Prepare for replacement of the paper. If the remaining paper length is less than 10", printing becomes uneven due to the uneven paper core surface.
- When the Printed paper is touched by wet hand, the print may be discolored.
- When the paper runs out during printing, the printing operation stops and "EP" is displayed by the indicator on the front panel. Install new paper at this time.
- Store the printed paper in a place with low humidity free from a direct sunlight.
- If the paper absorbs non-volatile organic solvents (alcohol, ester, katone, etc.) the print may be discolored.
  Particularly, if the paper comes in contact with soft vinyl chloride such as a transparent tape, it quickens discoloration.
- Do not use paper other than the specified one.
- Immediately after the paper is replaced, 2-3 images may be printed with a blank part due to hand's dust or oil.
- Avoid a direct sunlight or a plane near a heater, and store the paper in a place with 30°C (86°F) or lower temperature and 35-80% RH.
- When the paper is rapidly transferred from a cool place to a hot place, a vapor or a dew is generated on the paper surface causing paper jam or degraded printing quality.
- A finger print or dust on the paper surface may degrade the printing quality.

Note:
Mitsubishi brand thermal paper is specially treated with an anti-static coating against thermal head damage caused by static-electricity discharge.
The use of non-treated paper may cause premature head failure in your product.

SAFETY TECHNICAL CHECKS

Terms: The safty test has to be done, according to the specified terms of § 11 chp. 1 MedGV mentioned in the certificate acc. § 22 chp.1, §22 chp. 2 or acc. to the type approval § 5 MedGV or according to the recommendation of the medical set manufacturer.

Items:
a) Visual check
Housing, cables, operator controls, readout devise (displays, LED etc.), labels, accessories, instruction manual.
b) Function test
Performance check acc. instruction munual, also unity and applicability of set and accessory test.
c) Electrical check
Safety electrical test of the configuration in accordance with VDE 0751.

" In the interest of safety, avoid the handing of liquids beside the set."

RESPONSIBILITY OF THE MANUFACTURER

The munufacturer, assembler, installer or importer considers himself responsible for the effects on safety, reliability and performance of the EQUIPMENT only if:
- assembly operations, extensions, re-adjustements, modifications or repairs are carried out by persons authorized by him, and
- the electrical installation of the relevant room complies with the IEC requirements
- the EQUIPMENT is used in accordance with the instructions for use.

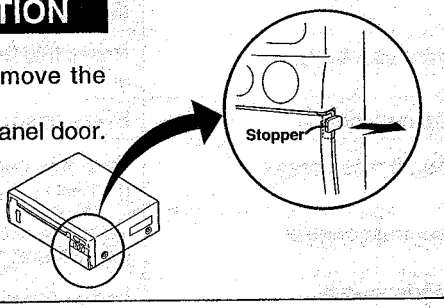
• Any service after expiration of the warranty period will be made at cost. Consult our service station in your place.

TECHNICAL DESCRIPTION

The supplier will make available on request such circuit diagrams, component part lists, descriptions, calibration instructions or other information which will assist the USER's appropriately qualified technical personnel to repair those parts of the EQUIPMENTwhich are classified by the manufacturer as repairable.

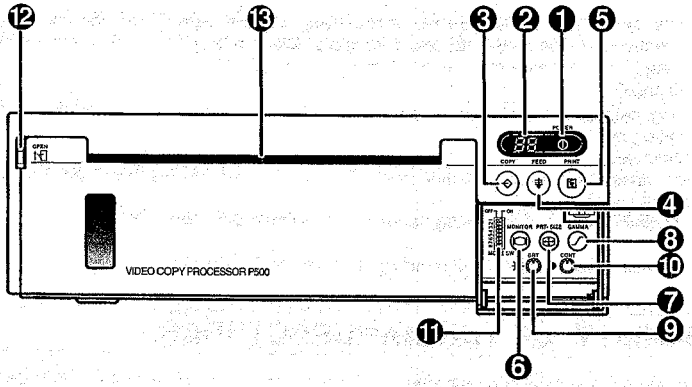
PREPARATION FOR OPERATION

When using this unit for the first time, remove the stopper (red).
This stopper is used to protect the control panel door.



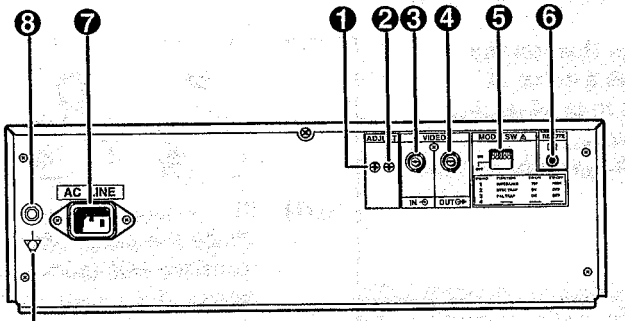
3 FEATURES AND FUNCTIONS

Front Panel



	Name	Function	Reference Page
❶	Power switch	Turns on/off the power.	11
❷	Indicator	Displays standby, functions and error messages.	13-20
❸	Copy button	Press this button for additional copies of the previous print-out.	11
❹	Feed button	Press this button to feed the paper.	11•12
❺	Print button	Press this button to memorize and print the picture displayed at that instant.	11•12
❻	Monitor button	Press this button to change the picture on the monitor screen.	13
❼	Print size button	Press this button to change the print size.	15
❽	Gamma button	Press this button to change the γ-curve.	14
❾	Brightness control	Turn this control to adjust brightness the printed image.	13
❿	Contrast control	Turn this control to adjust contrast of the printed image.	13
⓫	Mode switch	Select special functions.	17-19
⓬	Lever	Door open	7
⓭	Print exit/Cutter	Location of paper cutter and paper exit.	11

Rear Panel



POTENTIAL EQUALIZATION TERMINAL
This is used to equalize the potential of the equipment connected to this unit.
In medical rooms, when CF-type equipments* are connected, it is necessary to equalize the potential of both units.
*CF = Cardiac Floating

CF TYPE EQUIPMENT
Class I or II EQUIPMENT or EQUIPMENT with an INTERNAL ELECTRICAL POWER SOURCE , providing a high degree of protection against electric shock particularly regarding allowable LEAKAGE CURRENTS, and having an F-TYPE ISOLATED (FLOATING) APPLIED PART.
TYPE CF EQUIPMENT is primarily intended for DIRECT CARDIAC APPLICATION

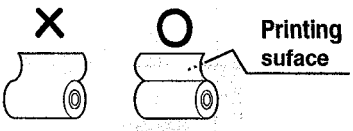
	Name	Function	Reference Page
❶	Horizontal position control	Adjust the horizontal position of a picture.	–
❷	AFC* control	Adjust automatic frequency control.	–
❸	VIDEO IN connector (BNC type)	Video signal input	9•10
❹	VIDEO OUT connector (BNC type)	Video signal output (Monitor output).	9•10
❺	MODE switch	Selects special functions.	17
❻	Remote control terminal	Input terminal for remote control.	12
❼	Power terminal (AC LINE)	AC input power cord connection	–
❽	Potential equalization terminal	Makes the connected equipment of equal potential.	–

*AFC : Automatic Frequency Control

4 INSTALLATION OF PAPER

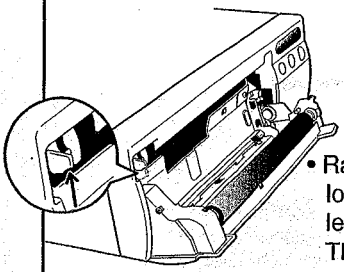
Paper (High-density paper K75HM)

•Moisture, fingerprints or dust on the paper surface may cause a noise at printing or deterioration in print quality. Set the paper in the following procedure to prevent adhesion of fingerprint or dust on the paper surface.



NOTE : The printing surface is the outside. Place the paper with the thermo-sensitive side (printing side) up. When the paper roll is placed inversely, images can not be printed.

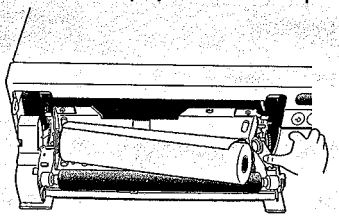
1 Open the door.

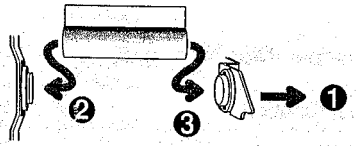


• Raise up the lever located on the left side. The door opens.

2 Load the paper roll.

•Place the paper roll in the printer.





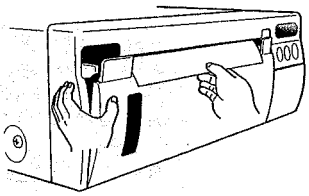
❶ Release the right holder to rightward.

❷ Insert the paper roll into the left holder.

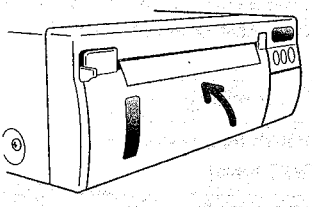
❸ Insert the paper roll into the right holder.

3 Pull out the paper end.

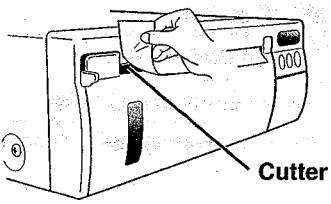
• Pull out the paper 15-20 cm (6 -9 in.) to eliminate any slack of the roll paper.



4 Close the door.



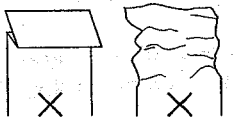
5 Cut the paper end.



• Cut the paper end with the cutter just like tearing off the paper.

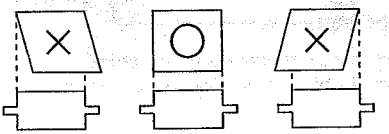
■ When setting the paper, observe the following precautions to prevent paper jam.

Do not use defective paper.



■ Do not use the bent or wrinkled paper.

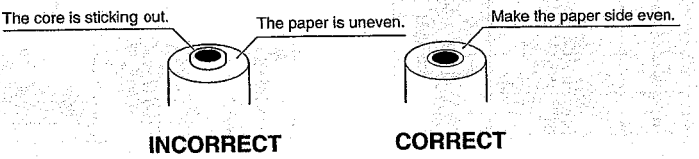
Adjust the paper position correctly.



■ When the paper is fed out skewed from the print exit, adjust the paper position so that it is fed out straight.

CAUTION

- Keep the high-density paper away from fingerprint, dust or moisture when storing it.
- Do not touch the rubber roller. Do not stain or damage the roller surface.
- Do not touch your hand to the thermal head (located behind the cutter). The thermal head is heated to high temperature.
- Do not touch the cutter blade.
- If the side of the print paper is uneven or the core is sticking out, the amount of paper feeding after printing may vary. When the side of paper is uneven or the core is sticking out, install the print paper after making the paper side even.



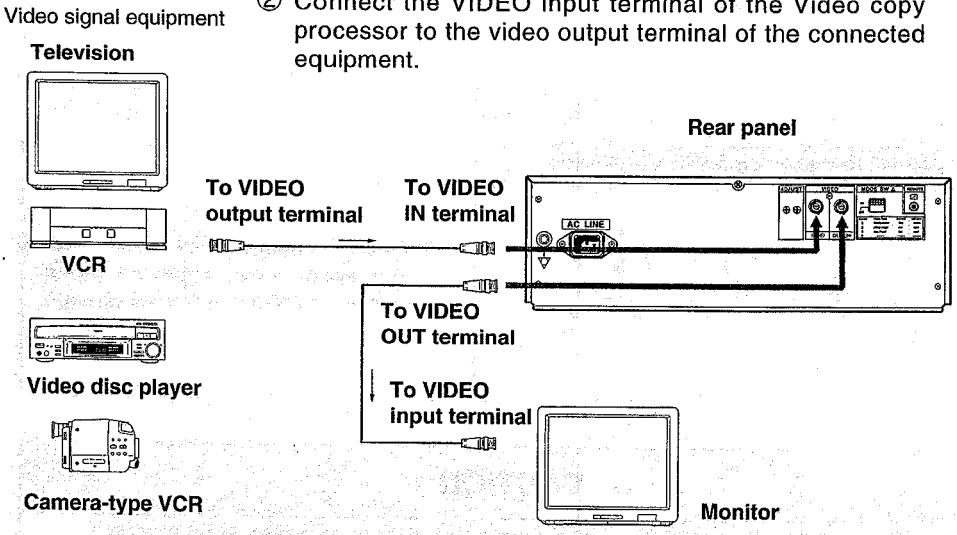
5 EXAMPLE OF CONNECTION / SETTING OF SWITCHES

Connectable to various composite video signal equipments such as medical equipment.

Composite Video Signal

① Turn off the power switches of the Video copy processor and the connected equipment.

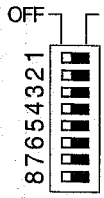
② Connect the VIDEO input terminal of the Video copy processor to the video output terminal of the connected equipment.



Setting of Switches

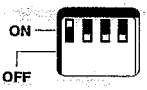
- The following is an example of MODE switch setting. (This is standard setting.)
- Refer to pages 17 - 19 for the MODE switch settings.

FRONT CONTROL PANEL



SW-NO.	FUNCTION	SETTING
1	IMAGE	POSI
2	AFC	OFF
3	DIRECTION	NORMAL
4	MEMORY	FRAME
5	SCAN	UNDER
6	PAPER-SAVING	OFF
7	PAPER TYPE	HD
8	AGC	OFF

REAR PANEL



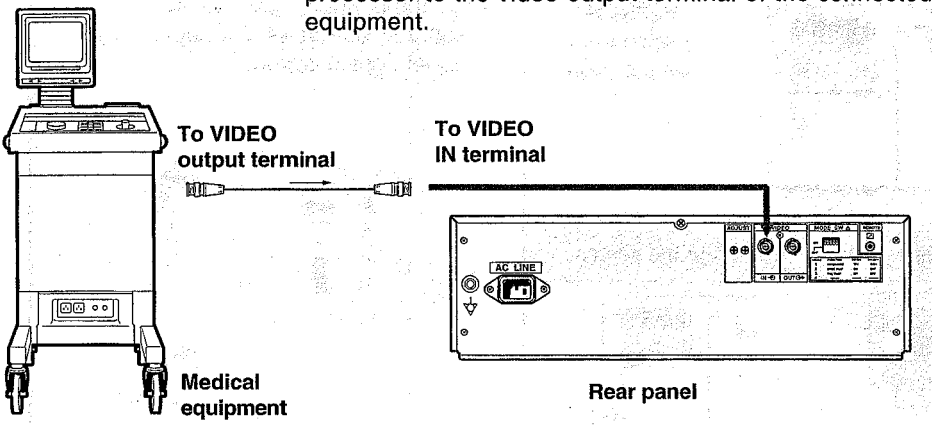
SW-NO.	FUNCTION	SETTING
1	IMPEADANCE	75Ω
2	NTSC TRAP	ON (NTSC) or OFF (PAL)
3	PAL TRAP	OFF (NTSC) or ON (PAL)
4	–	–

- Select γ-curve "ﾆ" for video equipment. Refer to the γ-curve set mode on page 14.

Medical Video Signal

① Turn off the power switches of the Video copy processor and the connected equipment.

② Connect the VIDEO input terminal of the Video copy processor to the video output terminal of the connected equipment.



Setting of Switches

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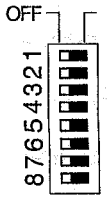


FRONT CONTROL PANEL

SW-NO.	FUNCTION	SETTING
1	IMAGE	POSI
2	AFC	OFF
3	DIRECTION	NORMAL
4	MEMORY	FRAME
5	SCAN	UNDER
6	PAPER-SAVING	OFF
7	PAPER TYPE	HD
8	AGC	OFF

REAR PANEL

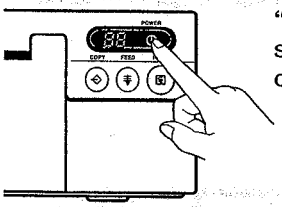
SW-NO.	FUNCTION	SETTING
1	IMPEADANCE	75Ω
2	NTSC TRAP	ON (NTSC) or OFF (PAL)
3	PAL TRAP	OFF (NTSC) or ON (PAL)
4	–	–

■ Select γ-curve "1" and "3" - "5" for ultrasonic diagnosis equipment.
Especially "5" is recommended. Refer to the γ-curve set mode on page 14.

6 PRINTING

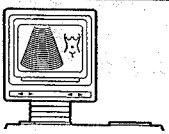
Printing Procedure

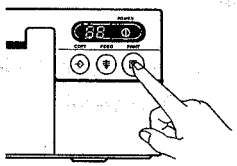
1 Turn on the power.



- Press the **"POWER"** switch to turn on the power.

2 Print a picture displayed on the screen.



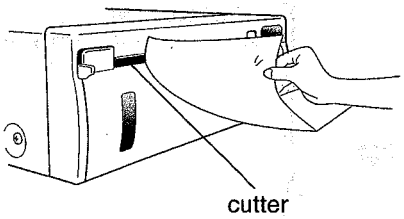


- Display a picture to be printed on the monitor screen, and press the " **PRINT** " button.

■ When printing is over, it warns by a buzzer tone.

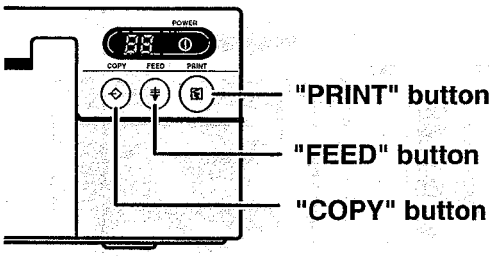
3 Cut the printed paper.

- Cut the printed paper with the cutter by tearing off the paper in the upper right direction.



Copy Printing

■ You can set the number of copies by pressing the **"COPY"** button on the front panel. You can copy the same picture as many times as you desire until the " **PRINT** " button is pressed again.

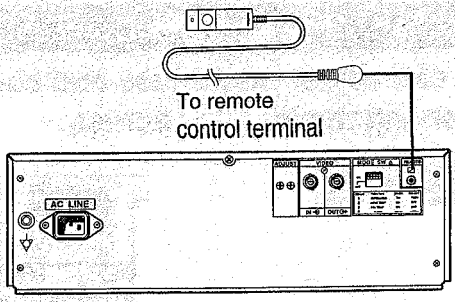


Paper Feeding

■ Pressing the **"FEED"** button on the front panel to feed the paper.

Use of Remote Control

- Connect the wired remote control to the remote control terminal on the rear panel.
- Press the remote control button to print pictures.
  This performs the same function as the "**PRINT**" button.



Rear panel

Precautions on Printing

- If printing is continued with a very black picture, the Video copy processor may become overheated, causing failure of normal printing. ("EH" is indicated, and the print density becomes thin.)
  In this case, wait for a while until the unit is cooled down.
- Avoid pulling out or holding the recording paper during printing or copying.
  It may cause a paper jam. Do not touch the paper until printing or copying ends.

Paper saving mode

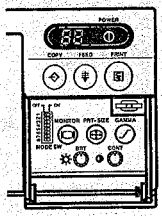
- When the paper saving mode is selected to "ON" with the front mode switch "PAPER-SAVING #6 " , print feeding distance is shorter than normal condition.
  Before cutting the print, press the " **FEED** " button to feed paper up to appropriate cutting position. Press and hold the " **FEED** " button on the front panel to advance the paper.

7 ADJUSTMENT OF PRINT PICTURE

Adjustment of Brightness/Contrast

■ You can adjust brightness and contrast of print while observing the monitor screen.

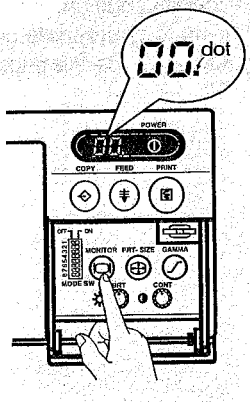
Control panel



• Adjust the pictures with the brightness control (BRT) "☼" and the contrast control (CONT) "◑" while observing the monitor screen with MONITOR "▣"button .

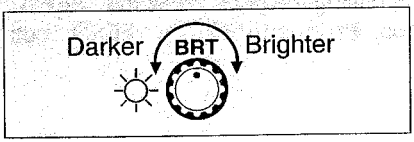
1 Select the picture adjustment mode.

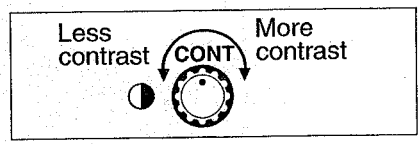
■ Press the MONITOR " ▣ " button to select the picture adjustment mode.
• The picture adjustment mode is indicated by the dot " ■ ".



2 Adjust the brightness and contrast .

■ Adjust the brightness and contrast with the brightness control (BRT) "☼" and the contrast control (CONT) "◑" while observing the picture on the monitor.

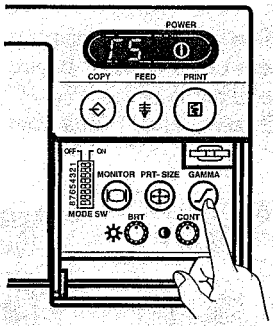




The contrast of the images will automatically adjust when the AGC switch is set to "ON". The CONT control is not available.
(Refer to page 19.)

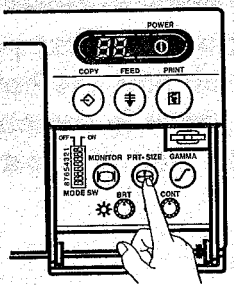
Selection of Gamma (γ) Curve

■ You can select γ-curve by pressing the gamma button " ". Each time the button is pressed, the indicator and γ-curve number is switched. After a γ-curve number has been selected, press any other button to store the γ-curve number.



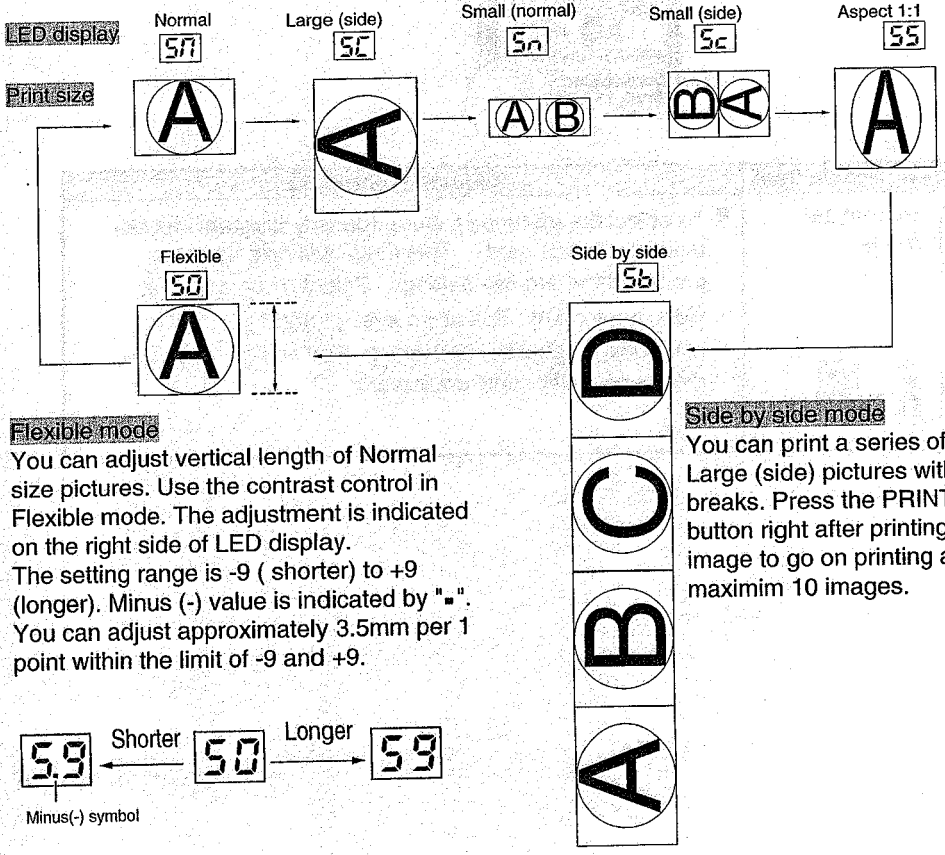
Indicator/Adjustable item	Adjustable contents
γ-curve set mode ~	■ To select the gamma (γ) curve (density diagram characteristic) use this mode. This mode will help optimize prints. There are five settings. Select γ-curve "2" for video equipment. Select γ-curve "1" and "3" - "5" for ultrasonic diagnostic equipment. Setting "5" is recommended for ultrasonic equipment.

Selection of Print Size



■ You can select print size by pressing the print-size button "⊕". Each time the button is pressed, the indicator and print size is switched as follows.

Note:
When the small (side) or small (normal) size is stored, press the "PRINT" button twice to print out. The first press of the "PRINT" button will store in memory the first image, the second press of the "PRINT" button will memorize the second image and automatically print both images.

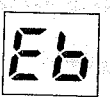


Flexible mode
You can adjust vertical length of Normal size pictures. Use the contrast control in Flexible mode. The adjustment is indicated on the right side of LED display.
The setting range is -9 (shorter) to +9 (longer). Minus (-) value is indicated by "▪".
You can adjust approximately 3.5mm per 1 point within the limit of -9 and +9.

Side by side mode
You can print a series of Large (side) pictures without breaks. Press the PRINT button right after printing a image to go on printing at maximim 10 images.

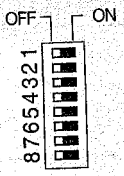
8 ERROR DISPLAY

When an error occurs it is warned by an audible alarm and the error message will be displayed in the LED indicator.

Cause/Error display	Symptom/ Remedy
① **No paper**	[Symptom] • When the paper runs out or the paper is not installed, printing becomes impossible and alarm tone is given.
	[Remedy] Install brand-new paper according to **"4. INSTALLATION OF PAPER"** on page 7.
② **Over heat**	[Symptom] • When the **"PRINT"** button is pressed with the head over-heated, an alarm tone is given and "EH" is displayed for 2 seconds in the indicator and then, printing occurs. In this case, the print density is thin.
	[Remedy] Wait until the head is cooled down.
③ **Button input error** 	[Symptom] • An alarm tone is given once, "Eb" is displayed for one second in the indicator, and button opetation is nullified in the following cases: The **"COPY"** button is pressed exceeding the limit value during setting the number of copies. The **"COPY"** button is pressed first after the power is turned on.
④ **Door error**	[Symptom] • When the door opens, an alarm tone is given.
	[Remedy] Close the door.

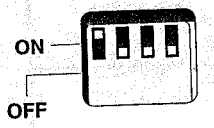
9 MODE SWITCH FUNCTIONS

FRONT CONTROL PANEL



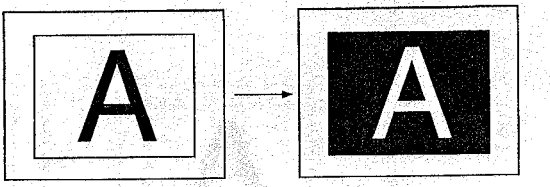
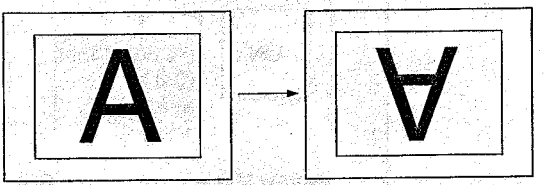
SW-NO.	FUNCTION	SW-OFF	SW-ON
1	IMAGE	POSI	NEGA
2	AFC	OFF	ON
3	DIRECTION	NORMAL	REVERSE
4	MEMORY	FRAME	FIELD
5	SCAN	UNDER	OVER
6	PAPER-SAVING	OFF	ON
7	PAPER TYPE	HD	SUPER
8	AGC	OFF	ON

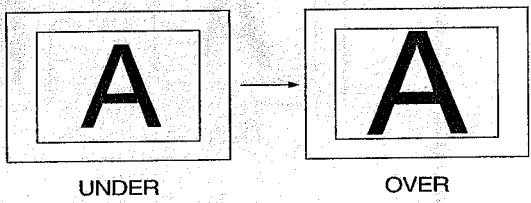
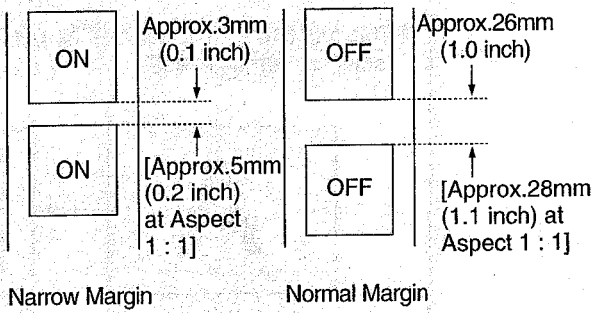
REAR PANEL



SW-NO.	FUNCTION	SW-OFF	SW-ON
1	IMPEADANCE	HIGH	75Ω
2	NTSC TRAP	OFF	ON
3	PAL TRAP	OFF	ON
4	–	–	–

MODE SWITCH (Rear DIP switch)	Functions
❶ **IMPEDANCE 75Ω/HIGH**	Usually set to "**75Ω**". Set to "**HIGH**" when making branch connection of a monitor or other units to the VIDEO IN connector.
❷ **NTSC-TRAP ON/OFF**	When this is set to "**ON**", the 3.58MHz NTSC trap circuit functions. At "**OFF**", the trap is invalid. Use only with NTSC signals. Normally set to "**ON**" for video sources (VCR, etc.) and "**OFF**" for medical equipment.
❸ **PAL-TRAP ON/OFF**	When this is set to "**ON**", the 4.43MHz PAL trap circuit functions. At "**OFF**", the trap is invalid. Use only with PAL signals. Normally set to "**ON**" for video sources (VCR, etc.) and "**OFF**" for medical equipment.
❹ -----	Unused

MODE SWITCH (Front DIP switch)	Functions
❶ **IMAGE NEGA/POSI**	NEGA:A picture is printed reverse to the display (negative). POSI: A picture is printed as displayed (positive).  POSI NEGA
❷ **AFC ON/OFF**	Usually set to "**OFF**". Set to "**ON**" when connecting equipment with a poor signal. Picture quality will be improved.
❸ **DIRECTION REV/NOR**	NOR (NORMAL): A picture is printed in the same direction as the display. REV(REVERSE): A picture is printed reverse to the display (180° turned). ■ This function is invalid when the print size is set to "Large (side)" or "Small (side)".  NORMAL REVERSE
❹ **MEMORY FIELD/FRAME**	FRAME: Usually set to "**FRAME**" position. FIELD: Set to "**FIELD**" position to print an image with rapid motion or VCR image in special playback mode. Vertical resolution of a printed picture is 1/2 of that at FRAME. ■ Usually two field pictures are synthesized for a monitor picture, and one frame picture is displayed.

MODE SWITCH (Front DIP switch)	Functions
❺ SCAN OVER/UNDER	UNDER: Usually set to "**UNDER**" position. OVER: Set to "**OVER**" position to print larger image. 
❻ PAPER SAVING ON/OFF	Set this switch to select the margin size. ON: Printed with narrow margin. OFF: Printed with normal margin. 
❼ PAPER SUPER / HD	Set this switch as follows to suit the thermal paper used: Position: SUPER — Thermal paper: K70S Position: HD — Thermal paper: K75HM , K75H
❽AGC ON/OFF	The contrast of the images will be automatically adjusted when this switch is set to "ON".

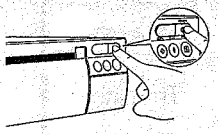
10 STATUS AND MODES

Set state/Mode	LED display		Contents of right side LED display	Video output
	Left	Point and right		
Power off			Power off	Through
Stand-by	0	0	Except small size	Through
	0	o	Small size for 1st image	Through
	0	'	Small size for 2nd image	Through
Print state	-	-	Print state	Through
Copy state	C	1 - 9	Remained copy number	Through
Brightness adjustment mode (Bright)	0	0.	Brightness index	Monitor
Contrast adjustment mode (Contrast)	0	0.	Contrast index	Monitor
γ-curve set mode (γ-curve)	r	1 - 5	γ-curve No.	Through/Monitor
Print size set mode	S	n	Normal	Through/ Monitor
		c	Large (side)	
		n	Small (normal)	
		c	Small (side)	
		S	Aspect 1:1	
		b	Side by side	
		0	Flexible	
Error detect state	E	H	Overheat	Through
		P	No paper	
		b	Button input error	
		o	Door is open.	

11 USE OF CLEANING PAPER

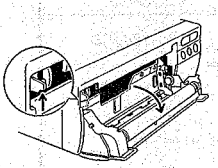
When the thermal head is dirty with dust and perspiration, etc., white spots or stripes may appear on the print. In this case, clean the thermal head in the following procedure by using the supplied cleaning paper.

1 Turn on the power.



■ Press the **"POWER"** switch to turn on the power.

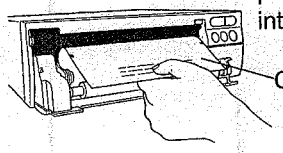
2 Open the door.



■ Switch the left side lever to the **"OPEN"** position.

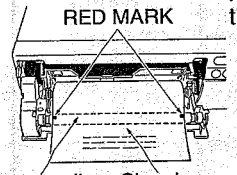
3 Insert the cleaning paper.

■ Roll the cleaning paper and install into the set.

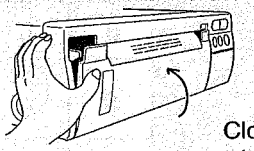


Cleaning paper

■ Adjust the red mark on the cleaning paper parallel to the the platen roller.

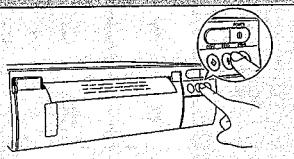


4 Close the door.



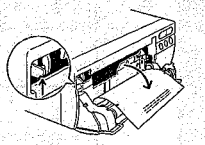
Close the door ■ without taking out the cleaning paper.

5 Press the "FEED" button.



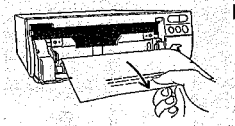
■ Keep pressing the **"FEED"** button until you hear a beep.

6 Take out the cleaning paper.



■ Open the door.

■ Take out the cleaning paper.



■ Do not pull out the cleaning paper while the door is closed.

7 Repeat the steps **3** - **6** by 2 or 3 times, and print 1-2 sheets to verify the cleaning effect.

CAUTION

- Once after printing 10 roles of paper is a standard period of using the cleaning paper.
- If the symptom of the dirty head is not corrected even after cleaning, your set needs repairing. Contact your dealer.
- Do not pull out the sheet and the cleaning paper while the door is closed. This may cause extensive damage on the unit.
- Never use other cleaning papers. It may cause damage to the thermal head.
- This cleaning paper should be used only for cleaning the thermal head. Do not use it for other purpose.

12 MAINTENANCE

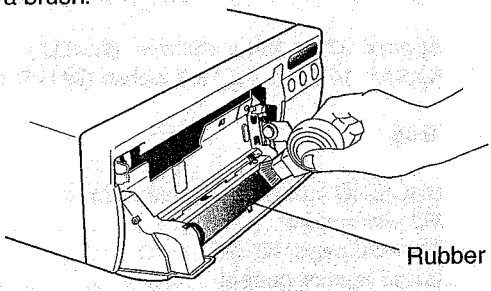
Turn off the power for maintenance.

Maintenance of Main Unit

Wipe off stains of the front panel with a soft cloth.
When the panel is heavily stained, wipe off with the cloth moistened with neutral cleanser diluted by water and finish with a dry cloth.

Maintenance of Rubber Roller

When the rubber roller is dirty with dust, etc., a blank spot may appear on the print.
In this case, eliminate the dust on to the rubber roller with a blower or a brush.



Cleaning of Thermal Head

When the thermal head is dirty with dust, etc., white spots or stripes may appear on the print.
In this case, clean the thermal head according to **"11. USE OF CLEANING PAPER"**.

Note: After installation of new roll of paper, dust on the paper will generally require 2 to 3 prints to be made before the dust is eliminated.

13 SPECIFICATIONS

Type:	Video Copy Processor
Model:	P500W/P500E
Power requirements and consumption:	120V AC, 50/60Hz, 1.5A 220 - 240V AC, 50 Hz, 0.8A
Connection terminals:	Video input terminal (BNC contact plug) Video output terminal (BNC contact plug)
Resolution:	Horizontal 1278 dots x Vertical 500 lines (Standard , NTSC) Horizontal 1278 dots x Vertical 600 lines (Standard , PAL)
Gradation:	256 gradations
Printing speed:	9.4 sec (Standard , NTSC) , 11.3 sec (Standard , PAL)
Print size:	200 x 150 mm (Standard)
Operating conditions:	Temperature 5 - 40 °C (41 - 104 °F) Humidity 35 - 80 % RH (No dewing)
External dimensions:	Approx. 370 x 120 x 336 mm (W.H.D.) Approx. 14.6 x 4.7 x 13.3 inches (W.H.D.)
Weight:	9 kg
Standard accesories:	BNC/BNC connection cable (2m) ..... 1 piece AC power cord ..... 1 piece Thermal paper K75HM ..... 1 roll Wired remote control ..... 1 unit Cleaning paper ..... 1 sheet
Optional accessory:	Thermal paper K75HM,K75H, K70S

CALLING FOR SERVICE

Before requesting service please review this operation manual to correct minor complaints. If you are unable to correct the problem, consult your MITSUBISHI Dealer or MITSUBISHI Service Department.

DO NOT ADJUST ANY CONTROLS NOT DESCRIBED IN THIS OPERATION MANUAL.
DO NOT REMOVE THE PROTECTIVE ENCLOSURE OF THIS UNIT.